

SEQUENCE LISTING

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<120> Protein Cluster II

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<170> PatentIn version 3.0

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Lys Ser Trp Leu Asn Phe Leu Thr Phe Leu Tyr Gly Ser Ala Ile Gly
15 20 25ttt att tta ttt tct cag cta ctt agt att ttg ttg gga gaa gag ggt
Phe Ile Leu Phe Ser Gln Leu Ser Ile Leu Leu Gly Glu Glu Gly
30 35 40gac acc cag act aat gtt ctt cat aat gat cct cat gcg agg cat tca
Asp Thr Gln Thr Asn Val Leu His Asn Asp Pro His Ala Arg His Ser
45 50 55gat gat aat gga cag aat cat cta gga gga caa atg aac ttc aat gca
Asp Asp Asn Gly Gln Asn His Leu Gly Gly Gln Met Asn Phe Asn Ala
60 65 70 75gat tct agc caa cgt aaa gat gag aac aca gaa atc gct gaa aac ctc
Asp Ser Ser Gln Arg Lys Asp Glu Asn Thr Glu Ile Ala Glu Asn Leu
80 85 90tat nag caa gtt aaa att ctt tgc tgg gtt atg aca ggc tct caa aac
Tyr Xaa Gln Val Lys Ile Leu Cys Trp Val Met Thr Gly Ser Gln Asn
95 100 105cta cag aaa aag gcc aaa cat gtc aaa gct aca tgg gcc cag cgt tgt
Leu Gln Lys Lys Ala Lys His Val Lys Ala Thr Trp Ala Gln Arg Cys
110 115 120cta aaa gta ttt ttt atg agt tca gaa gaa aat aaa gac ttc cgt gct
Leu Lys Val Phe Phe Met Ser Ser Glu Glu Asn Lys Asp Phe Arg Ala
125 130 135gtg gga ttg aaa acc aaa gca ggc aga gat gag cta tac tgg aaa aca
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Gln Leu Leu Ser Ile Leu Leu Gly Glu Glu Gly Asp Thr Gln Thr Asn
35 40 45

Val Leu His Asn Asp Pro His Ala Arg His Ser Asp Asp Asn Gly Gln
50 55 60

Asn His Leu Gly Gly Gln Met Asn Phe Asn Ala Asp Ser Ser Gln Arg
65 70 75 80

Lys Asp Glu Asn Thr Glu Ile Ala Glu Asn Leu Tyr Xaa Gln Val Lys
85 90 95

Ile Leu Cys Trp Val Met Thr Gly Ser Gln Asn Leu Gln Lys Lys Ala
100 105 110

Lys His Val Lys Ala Thr Trp Ala Gln Arg Cys Leu Lys Val Phe Phe
115 120 125

Met Ser Ser Glu Glu Asn Lys Asp Phe Arg Ala Val Gly Leu Lys Thr
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Lys Ala Gly Arg Asp Glu Leu Tyr Trp Lys Thr Ile Asn Leu Phe
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57

105

Thr Gly Val Thr Asp Lys Leu Tyr Gln Lys Met Lys Ile Leu Cys Trp
 5 10 15

att atg aca gga cct caa aat cta gaa aaa aag atc aga cgc atc aga 153
 Ile Met Thr Gly Pro Gln Asn Leu Glu Lys Lys Ile Arg Arg Arg Ile Arg
 20 25 30

gat aca tgg gcc cag ggt tgc aat aaa gcg ttg ttt atg agc tca aaa 201
 Asp Thr Trp Ala Gln Gly Cys Asn Lys Ala Leu Phe Met Ser Ser Lys
 35 40 45

gaa aat aaa gac ttc tct act gtg gga tta cac acc aaa gaa gac aga 249
 Glu Asn Lys Asp Phe Ser Thr Val Gly Leu His Thr Lys Glu Asp Arg
 50 55 60 65

aac caa ctg tcc tgg aaa ata gtt aaa gct ttt cta tat gct cat gac 297
 Asn Gln Leu Ser Trp Lys Ile Val Lys Ala Phe Leu Tyr Ala His Asp
 70 75 80

cat tat ctg gaa tac atg gat tgg ttc atg aaa gca gat gat gat ata 345
 His Tyr Leu Glu Tyr Met Asp Trp Phe Met Lys Ala Asp Asp Asp Ile
 85 90 95

tgt ata tat atc aca ttg gac aac ttg aaa tgg ctt ctc aca aac tat 393
 Cys Ile Tyr Ile Thr Leu Asp Asn Leu Lys Trp Leu Leu Thr Asn Tyr
 100 105 110

aac cct gat gaa tcc act tac ttt ggg aaa aga ttt aag cac tgc aga 441
 Asn Pro Asp Glu Ser Thr Tyr Phe Gly Lys Arg Phe Lys His Cys Arg
 115 120 125

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 35 40 45

Lys Glu Asn Lys Asp Phe Ser Thr Val Gly Leu His Thr Lys Glu Asp
 50 55 60

Arg Asn Gln Leu Ser Trp Lys Ile Val Lys Ala Phe Leu Tyr Ala His
 65 70 75 80

Asp His Tyr Leu Glu Tyr Met Asp Trp Phe Met Lys Ala Asp Asp Asp
 85 90 95

Ile Cys Ile Tyr Ile Thr Leu Asp Asn Leu Lys Trp Leu Leu Thr Asn
 100 105 110

Sub
BY

Tyr Asn Pro Asp Glu Ser Thr Tyr Phe Gly Lys Arg Phe Lys His Cys
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Glu
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tct agc caa cat aaa gat gag aac aca gac att gct gaa aac ctc tat 97
Ser Ser Gln His Lys Asp Glu Asn Thr Asp Ile Ala Glu Asn Leu Tyr
20 25 30

cag aaa gtt aga att ctt tgc tgg gtt atg acc ggc cct caa aac cta 145
Gln Lys Val Arg Ile Leu Cys Trp Val Met Thr Gly Pro Gln Asn Leu
35 40 45

gag aaa aag gcc aaa cac gtc aaa gct act tgg gcc cag cgt tgt aac 193
Glu Lys Lys Ala Lys His Val Lys Ala Thr Trp Ala Gln Arg Cys Asn
50 55 60

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Lys Val Leu Phe Met Ser Ser Glu Glu Asn Lys Asp Phe Pro Ala Val
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gga ctg aaa acc aaa gaa ggc aga gat caa cta tac tgg aaa aca att 289
Gly Leu Lys Thr Lys Glu Gly Arg Asp Gln Leu Tyr Trp Lys Thr Ile
85 90 95

aaa gct ttt cag tat gtt cat gaa cat tat tta caa gat gct gat tgg 337
Lys Ala Phe Gln Tyr Val His Glu His Tyr Leu Gln Asp Ala Asp Trp
100 105 110

ttt ttg aaa gca gat gat gac acg tat gtc ata cta gac aat ttg agg 385
Phe Leu Lys Ala Asp Asp Asp Thr Tyr Val Ile Leu Asp Asn Leu Arg
115 120 125

tgg ctt ctt tca aaa tac gac cct gaa gaa ccc att tac ttt ggg aga 433
Trp Leu Leu Ser Lys Tyr Asp Pro Glu Glu Pro Ile Tyr Phe Gly Arg
130 135 140

aga ttt aag cct tat gta aag cag ggc tac atg agt gga gga gca gga 481
Arg Phe Lys Pro Tyr Val Lys Gln Gly Tyr Met Ser Gly Gly Ala Gly
145 150 155 160

tat gta cta agc aaa gaa gcc ttg aaa aga ttt gtt gat gca ttt aaa 529
Tyr Val Leu Ser Lys Glu Ala Leu Lys Arg Phe Val Asp Ala Phe Lys
165 170 175

aca gac aag tgt aca cat agt tcc tcc att gaa gac tta gca ctg ggg 577
Thr Asp Lys Cys Thr His Ser Ser Ser Ile Glu Asp Leu Ala Leu Gly
180 185 190

aga tgc atg gaa att atg aat gta gaa gca gga gat tcc aga gat acc 625
 Arg Cys Met Glu Ile Met Asn Val Glu Ala Gly Asp Ser Arg Asp Thr
 195 200 205
 att gga aaa gaa act ttt cat ccc ttt gtg cca gaa cac cat tta att 673
 Ile Gly Lys Glu Thr Phe His Pro Phe Val Pro Glu His His Leu Ile
 210 215 220
 aaa ggt tat cta cct aga acg ttt tgg tac tgg aat tac aac tat tat 721
 Lys Gly Tyr Leu Pro Arg Thr Phe Trp Tyr Trp Asn Tyr Asn Tyr Tyr
 225 230 235 240
 cct cct gta gag ggt cct ggt tgc tgc tct gat ctt gca gtt tct ttt 769
 Pro Pro Val Glu Gly Pro Gly Cys Cys Ser Asp Leu Ala Val Ser Phe
 245 250 255
 Sub B
 cac tat gtt gat tct aca acc atg tat gag tta gaa tac ctc gtt tat 817
 His Tyr Val Asp Ser Thr Thr Met Tyr Glu Leu Glu Tyr Leu Val Tyr
 260 265 270
 cat ctt cgt cca tat ggt tat tta tac aga tat caa cct acc tta cct 865
 His Leu Arg Pro Tyr Gly Tyr Leu Tyr Arg Tyr Gln Pro Thr Leu Pro
 275 280 285
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 Glu Arg Ile Leu Lys Glu Ile Ser Gln Ala Asn Lys Asn Glu Asp Thr
 290 295 300
 aaa gtg aag tta gga aat cct tgaaagaaaa tcatgaatga acaaaggtaa 964
 Lys Val Lys Leu Gly Asn Pro
 305 310
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Gln Lys Val Arg Ile Leu Cys Trp Val Met Thr Gly Pro Gln Asn Leu
 35 40 45

Glu Lys Lys Ala Lys His Val Lys Ala Thr Trp Ala Gln Arg Cys Asn
50 55 60

Lys Val Leu Phe Met Ser Ser Glu Glu Asn Lys Asp Phe Pro Ala Val
65 70 75 80

Gly Leu Lys Thr Lys Glu Gly Arg Asp Gln Leu Tyr Trp Lys Thr Ile
85 90 95

Lys Ala Phe Gln Tyr Val His Glu His Tyr Leu Gln Asp Ala Asp Trp
100 105 110

Sub B
Phe Leu Lys Ala Asp Asp Asp Thr Tyr Val Ile Leu Asp Asn Leu Arg
115 120 125

Trp Leu Leu Ser Lys Tyr Asp Pro Glu Glu Pro Ile Tyr Phe Gly Arg
130 135 140

Arg Phe Lys Pro Tyr Val Lys Gln Gly Tyr Met Ser Gly Gly Ala Gly
145 150 155 160

Tyr Val Leu Ser Lys Glu Ala Leu Lys Arg Phe Val Asp Ala Phe Lys
165 170 175

Thr Asp Lys Cys Thr His Ser Ser Ile Glu Asp Leu Ala Leu Gly
180 185 190

Arg Cys Met Glu Ile Met Asn Val Glu Ala Gly Asp Ser Arg Asp Thr
195 200 205

Ile Gly Lys Glu Thr Phe His Pro Phe Val Pro Glu His His Leu Ile
210 215 220

Lys Gly Tyr Leu Pro Arg Thr Phe Trp Tyr Trp Asn Tyr Asn Tyr Tyr
225 230 235 240

Pro Pro Val Glu Gly Pro Gly Cys Cys Ser Asp Leu Ala Val Ser Phe
245 250 255

His Tyr Val Asp Ser Thr Thr Met Tyr Glu Leu Glu Tyr Leu Val Tyr
260 265 270 275

His Leu Arg Pro Tyr Gly Tyr Leu Tyr Arg Tyr Gln Pro Thr Leu Pro
275 280 285

Glu Arg Ile Leu Lys Glu Ile Ser Gln Ala Asn Lys Asn Glu Asp Thr
290 295 300

Lys Val Lys Leu Gly Asn Pro
305 310